Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method of partitioning a reference database for determining a reflectance spectrum, comprising:

establishing a plurality of clusters;

identifying, for each training sample of a plurality of training samples, a most appropriate cluster among the plurality of clusters and assigning each training sample to the most appropriate cluster, each training sample correlating a reference spectrum with a corresponding plurality of normalized illuminant sensor outputs for reference colors.

2. (Original) The method according to claim 1, wherein:

the establishing the plurality of clusters comprises establishing a plurality of cluster centroids; and

the identifying of the most appropriate cluster comprises obtaining, for each training sample, a Euclidean distance to each of the cluster centroids,

wherein the most appropriate cluster is determined to be the cluster associated with the cluster centroid having the shortest Euclidean distance.

3. (Original) The method of claim 2, further comprising:

obtaining an average distortion based on the shortest Euclidean distance for each training sample;

updating the cluster centroids to decrease the average distortion; and

re-identifying the most appropriate cluster for each training sample and re-assigning the training samples based on the updated cluster centroids.

4. (Original) The method according to claim 1, wherein:

the establishing the plurality of clusters comprises establishing a plurality of cluster centroids, the cluster centroids being established through vector quantization.

5. (Currently Amended) A reference database partitioned by the method of ~~claim 1.~~claim 1, the reference database being machine-readable.

6. (Original) A storage medium on which is recorded a program for implementing the method of claim 1.

7-14 (Canceled)